

Significance of the Problem

- *To Err is Human: Building a Safer Health System* (IOM, 1999) and *Crossing the Quality Chasm* (IOM, 2001) highlighting ED handoffs as a safety measure during transition of care (Institute of Medicine, 1999 & 2001).
- Handoffs were again recognized as a safety issue with the National Patient Safety Goal 2E (Joint Commission, 2006).
- 45% of nurses agreed “problems often occur in the exchange of information across units” (Culture of Patient Survey, 2015).

PICOT Question

- What is the effect of implementing a standardized handoff between ED and ICU nurses when compared to the current handoff, regarding nursing communication and patient safety over an eight week period?

Review of the Literature

- **Search Terms:** Handoff, hand off, handover, inpatient transfer, emergency department, emergency room, inpatient, and patient safety.
- **Inclusive Criteria:** Peer reviewed, English language, 2006-2016.
- **Exclusive Criteria:** Bedside reports, shift reports, and handoffs involving healthcare provider other than registered nurses.

Database	Articles Found	Abstracts Read	Articles Analyzed
CINAHL	190	23	8
Medline	43	8	2
ProQuest	367	7	1
Cochrane Library	3	1	0
Joanna Briggs	8	2	0
Citation Search	9	5	4

Synthesis of the Evidence

Outcomes:

- Utilization of a standardized patient-specific tool during transitions of care improved communication between units (Toccafondi et al., 2012).
- Implementation of a standardized handoff has led to improved care, fewer patient complaints, and decreased time spent in handoff (Mardis et al., 2016).
- Adverse events increase with delays in patient transfers to the ICU, which directly affects patient mortality (Gillman et al., 2006; Hill, Vingilis, Martin, Hartford, & Speechley, 2007).

Appraisal of Evidence:

- **Level:** Melnyk and Fineout-Overholt’s Hierarchy of Evidence.
- **Quality:** Johns Hopkins Nursing Evidence-Based Practice Model

Evidence Appraisal

Level	Included	Design	Grade
III	2	Quasi-Experimental	B (2)
IV	1	Pilot Analysis	B (1)
V	5	Systematic Reviews	A (5)
VI	4	Ethnography	B (4)
VII	3	Protocol Model Literature Reviews	A (1) B (2)

Decision to Change Practice

Best Practice Recommendations

The majority of literature recommends:

1. Utilize a patient specific handoff tool
2. Minimize interruptions and multitasking
3. Ask questions if information is unclear or unknown
4. Notify RN of changes in patient’s status/anticipatory changes
5. Ensure timing is appropriate for both units
6. Confirm ancillary staff is notified and available

Practice Change Strategy

- Development of handoff protocol
- Face to face education with ED and ICU nurses
- Posted placards on computers with steps of protocol
- Weekly staff reminders and support

Implementation

Settings: 22 bed ED and 20 bed ICU in a Midwestern hospital

Participants: 62 nurses, ED (n=23) and ICU (n=39)

Theoretical Framework: Rogers’ Diffusion of Innovation

Evidenced-Based Practice Model: Stetler model

Practice Change:

- **Phase I:** Collect data on type of medical information given/received during ED to ICU patient transfer, strengths and weaknesses of practice, and length of transfer times
- **Phase II:** Develop protocol for a standardized handoff
- **Phase III:** Education of ED and ICU nurses on standardized handoff protocol, placement of reminder placards on both units
- **Phase IV:** Provide weekly responses on compliance to ED and ICU RNs in regard to execution of standardized handoff

Time: Two months

Measure of Outcomes:

Post-Implementation of Standardized Handoff Questionnaire

- Six questions related to specific steps of standardized handoff.
- Five point Likert scale (1=Never to 5=Always).

Pre and Post-Implementation of Standardized Handoff Questionnaires

- Two exact questions appeared on both pre and post questionnaires.

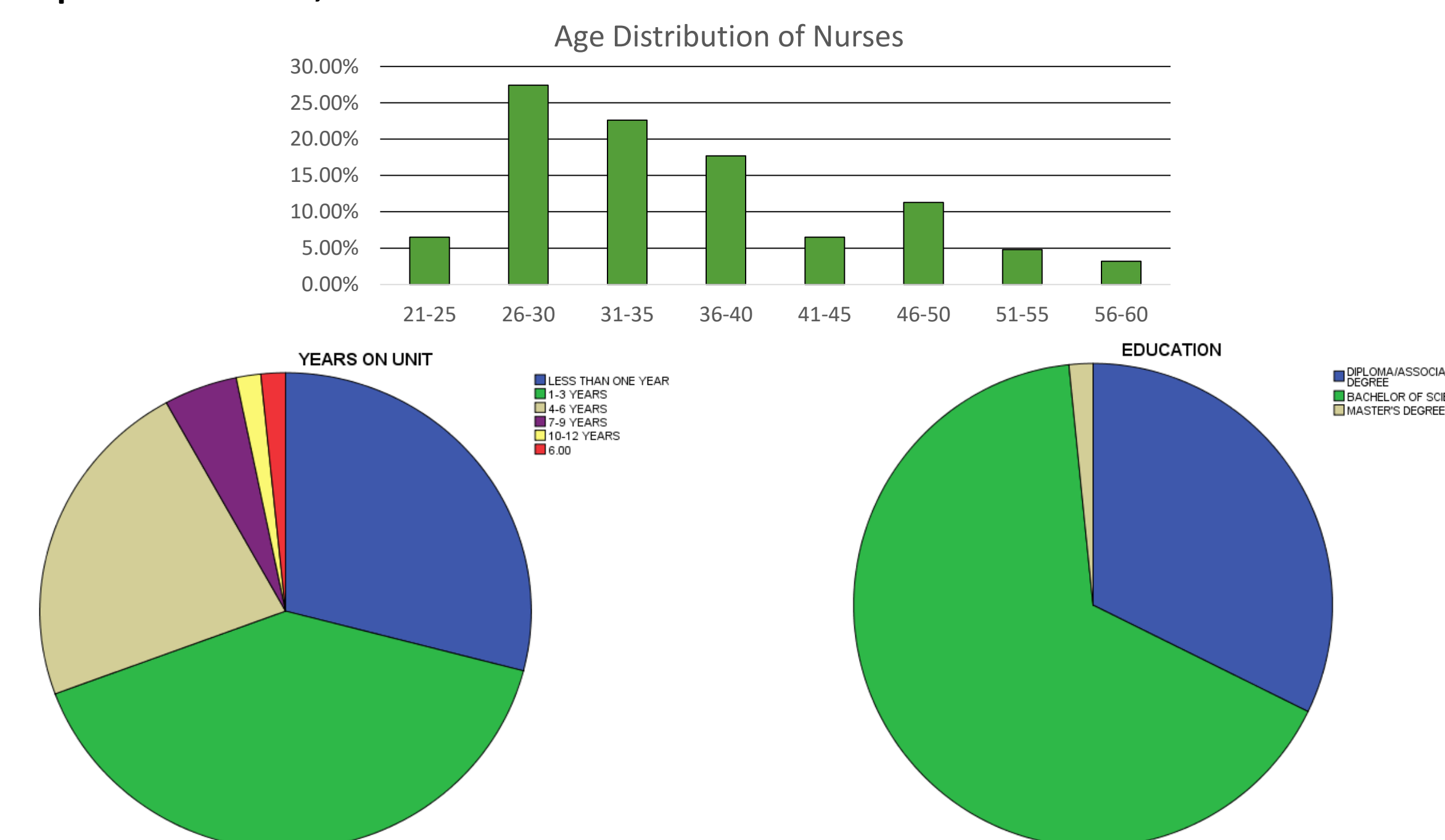
Patient Transfer Times from ED to ICU

- Patient transfer times for the two months prior to implementation were compared to times during the two month implementation.

Evaluation

Demographic Characteristics:

- **Gender:** Males 19.6% and Females 80.6%.
- **Race:** African American 4.8%, Asian 3.2 %, Caucasian 83.9 %, Hispanic 6.5%, and Other 1.6%.



Outcomes

Nursing Communication

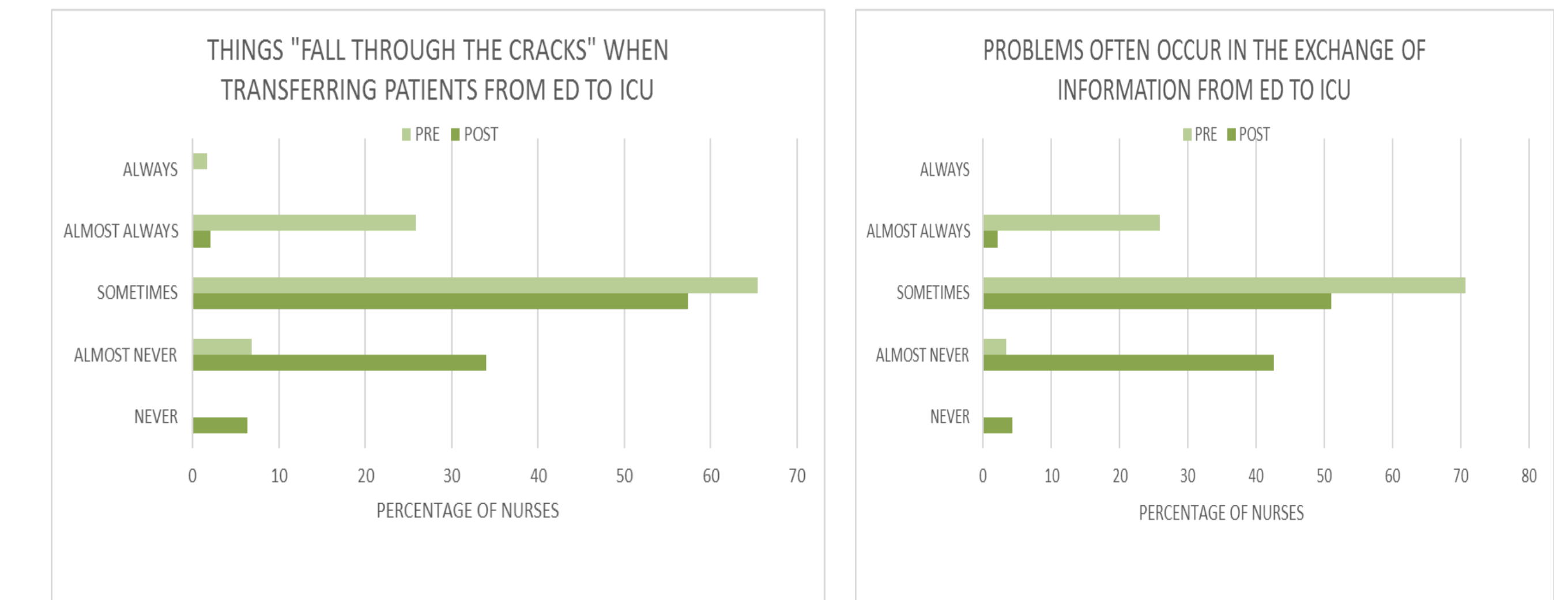
Post-implementation of Standardized Handoff Questionnaire:

- Nurses reported compliance with steps of standardized handoff.
- (3=Sometimes, 4=Almost Always, and 5=Always.)

STANDARDIZED HANDOFF	MEAN (M)	STANDARD DEVIATION (SD)
1. Tool Used	3.87	0.76944
2. Interruptions Minimized	3.36	0.76401
3. Questions Asked	3.81	0.79778
4. Anticipatory Guidance	4.13	0.64663
5. Timing of Transfer	3.49	0.77662
6. Ancillary Staff Notified	4.26	0.70612

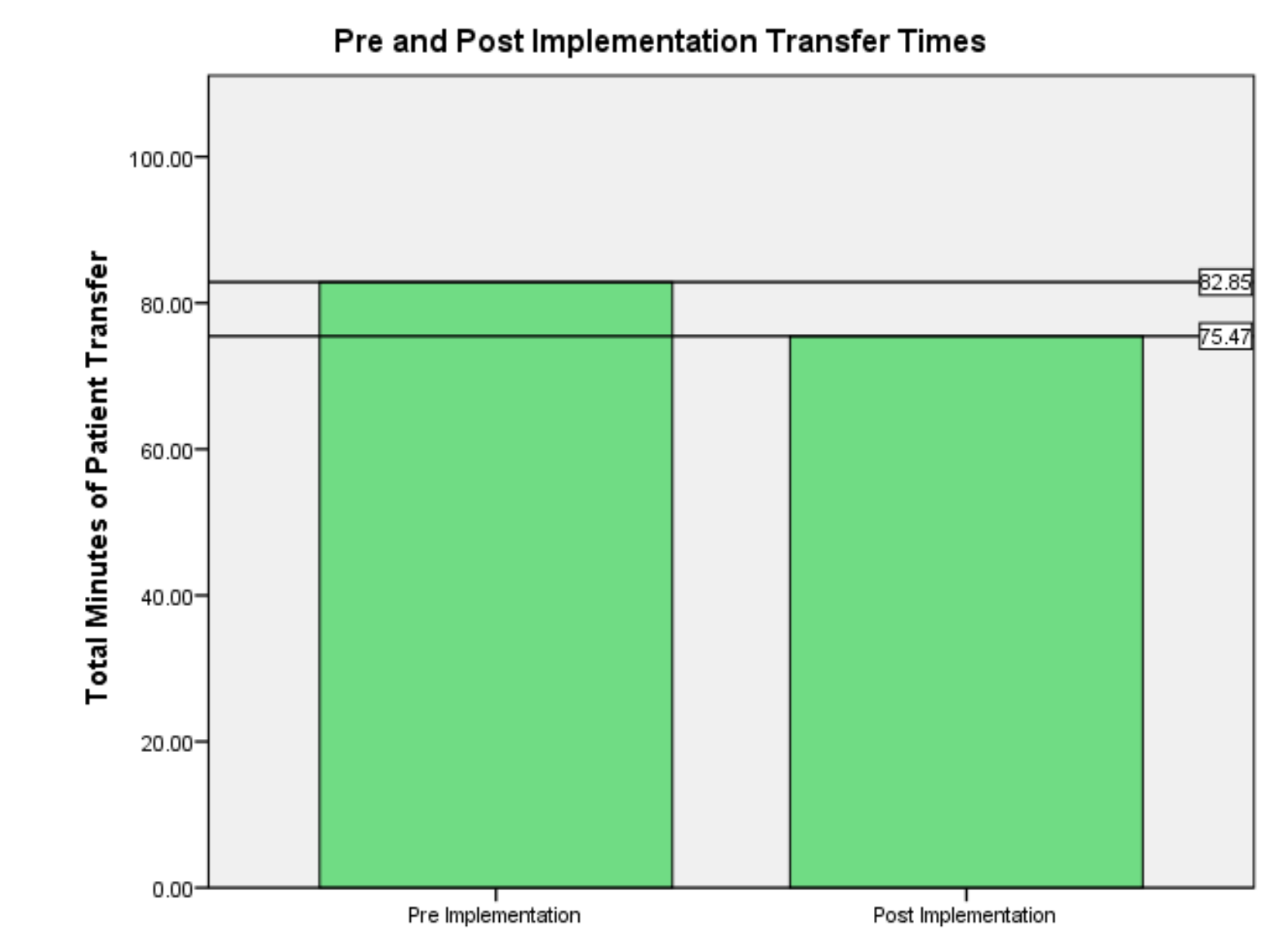
Patient Safety

Pre and Post-Implementation of Standardized Handoff Questionnaire:



Patient Transfer Times from ED to ICU:

- Patient transfer times decreased significantly from pre ($M = 82.85$ minutes) to post ($M = 75.47$ minutes) intervention ($t = 1.974$, $df = 283$, $p = 0.049$).



Conclusions

Implementation of a standardized handoff during transition of care is a successful method for:

- Improving nursing communication.
- Decreasing nurses who report things “falling through the cracks” when transferring patients from ED to ICU and problems occurring in the exchange of information from ED to ICU.
- Significantly decreasing patient transfer times from ED to ICU.

Recommendations

- All nurses will be educated about handoff as a safety measure, including IOM and Joint Commission recommendations.
- Standardized handoff will be implemented using patient specific tool during transition of care for all patients hospital-wide.
- All nurses will be educated on specific steps of this intervention.
- Nursing feedback will be collected and analyzed regarding handoff.
- Protocol will be introduced at other hospitals for ED to ICU handoff.